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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,729	12/02/2003	Roger D. Blotsky	1127-P-1	5386

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EXAMINER	
AHMED, HASAN SYED	
ART UNIT	PAPER NUMBER
1618	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/725,729	BLOTSKY ET AL.	
	Examiner	Art Unit	
	HASAN S. AHMED	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) *2 and 12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-11, and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- Receipt is acknowledged of applicants' amendment, which was filed on 28 January 2008.
- The 35 USC 112 rejections of the previous Office action are withdrawn in view of the amendment.

* * * * *

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,617,215 ("Sugahara").

Sugahara teaches a method of preparing a mineral composition (*see* col. 1, lines 4-13) comprising:

- admixing clay soil with water and an acid to form a slurry (*see* col. 3, lines 55-60);
- allowing particles of the slurry to settle (*e.g.* allowing the slurry to stand – *see* col. 5, line 12); and
- concentrating the liquid (*see* col. 6, lines 51-54).

Sugahara explains that this method is beneficial because it leads to effective utilization of acid and the extracted product (*see* col. 2, lines 19-21).

The clay soil characteristics recited in claim 1(a)(i)-(vi), the macro mineral elements recited in claim 6, and the micro mineral elements recited in claim 7 are deemed to be inherent features of clay soil, as explained in the instant specification (*see* page 7, line 10 – page 11, line 25).

The atomic numbers recited in claim 8 are inherent to the rare earth elements.

While Sugahara does not explicitly teach concentration of mineral elements to greater than 4% or the pH of the mineral composition to be less than 4.5, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine suitable percentage and pH through routine or manipulative experimentation to obtain the best possible results, as these are variable parameters attainable within the art.

Moreover, generally, differences in concentration and pH will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456; 105 USPQ 233, 235 (CCPA 1955).

Regarding the concentration of mineral elements, Applicants have not demonstrated any unexpected or unusual results, which accrue from the instant percentage range. Regarding pH, Sugahara discloses an amount of acid used

corresponding to 1.0 to 1.5 equivalents of the basic metal constituents to be removed (*see* col. 4, lines 6-16). As such, the Sugahara composition will be acidic.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method of preparing a mineral composition by extraction of clay soil, as taught by Sugahara. One of ordinary skill in the art at the time the invention was made would have been motivated to use such a method because it leads to effective utilization of acid and the extracted product, as explained by Sugahara.

*

2. Claims 1, 3, 4, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,617,215 ("Sugahara") in view of U.S. Patent No. 4,904,627 ("Bhattacharyya").

Sugahara teaches a method of preparing a mineral composition (*see* above).

Sugahara explains that this method is beneficial because it leads to effective utilization of acid and the extracted product (*see* col. 2, lines 19-21).

Sugahara differs from the instant application in that it does not teach the powder mineral element composition of instant claim 3, the spray drying of instant claim 4, the edible acid of instant claim 10, or the citric acid of instant claim 11.

Bhattacharyya teaches a process for producing an alkaline earth metal, aluminum-containing spinel/clay composition (*see* col. 1, lines 50-52). The process comprises:

- the powder of instant claim 3 (*see* col. 11, line 19);

- the spray drying of instant claim 4 (*see* col. 5, line 50);
- the edible acid (citric acid) of instant claim 10 (*see* col. 3, line 43); and
- the citric acid of instant claim 11 (*see* col. 3, line 43).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method of preparing a mineral composition by extraction of clay soil with citric acid followed by spray drying to formulate a powder, as taught by Sugahara in view of Battacharyya. One of ordinary skill in the art at the time the invention was made would have been motivated to use such a method because it leads to effective utilization of acid and the extracted product, as explained by Sugahara.

*

3. Claims 1, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,617,215 ("Sugahara") in view of U.S. Patent Application No. 2004/0258597 ("Michalakos").

Sugahara teaches a method of preparing a mineral composition (*see* above).

Sugahara explains that this method is beneficial because it leads to effective utilization of acid and the extracted product (*see* col. 2, lines 19-21).

Sugahara differs from the instant application in that it does not teach the reverse osmosis of instant claims 9 and 13, however water purification by reverse osmosis was known in the art at the time the instant application was filed, as shown by Michalakos (*see* paragraph 0009). Concentration of a liquid is an inherent feature of the reverse osmosis process.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method of preparing a mineral composition by extraction using water purified by reverse osmosis, as taught by Sugahara in view of Michalakos. One of ordinary skill in the art at the time the invention was made would have been motivated to use such a method because it leads to effective utilization of acid and the extracted product, as explained by Sugahara.

* * * * *

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1, 3-11, and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of copending Application No. 11/472,536 ('536). Although the conflicting claims are not identical, they

are not patentably distinct from each other because '536 claims a topical mineral composition comprising at least eight macro mineral elements, at least sixty micro mineral elements and at least ten rare earth elements (claim 1).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

2. Claims 1, 3-11, and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/638,311 ('311). Although the conflicting claims are not identical, they are not patentably distinct from each other because '311 claims a topical mineral composition comprising at least eight macro mineral elements, at least sixty micro mineral elements and at least ten rare earth elements (claim 1).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

* * * * *

Response to Arguments

Applicants' arguments filed on 14 September 2007 directed to the 35 USC 103 rejection have been fully considered but they are not persuasive.

Applicants argue that, "[t]he teaching of Sugahara is a method for removing basic metal constituents by acid extraction of dry clay, which does not provide a teaching or suggestion of Applicants' currently claimed invention." *See* remarks, page 5.

Examiner respectfully submits that the method recited in instant claim 1 is broad in scope; as such, Sugahra reads on the instant application as claimed. Sugahara

teaches all the steps of the process recited in instant claim 1. The instant claims do not limit the amount of acid that may be used, as such Sugahara's use of acid to remove basic metal constituents is not inconsistent with the instant application as it is currently claimed.

* * * * *

Conclusion

Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASAN S. AHMED whose telephone number is (571)272-4792. The examiner can normally be reached on 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571)272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. S. A./
Examiner, Art Unit 1618

/Humera N. Sheikh/
Primary Examiner, Art Unit 1618